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PTO/SB/17 (01-03)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT ($) 320.00

Complete if Known	
Application Number	09/396,407
Filing Date	September 15, 1999
First Named Inventor	David KOIZUMI
Examiner Name	Seyed AZARIAN
Art Unit	2621
Attorney Docket No.	Intel 2207/6657

METHOD OF PAYMENT *(check all that apply)*

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

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FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) ($)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims		Fee from below	Fee Paid
Total Claims	-20** =		X		=
Independent Claims	- 3** =		X		=
Multiple Dependent					=

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) ($)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Fee Code	Large Entity Fee ($)	Small Entity Fee Code	Small Entity Fee ($)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for *ex parte* reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	320.00
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) ($) 320.00

SUBMITTED BY				(Complete *if applicable*)	
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Signature	Shawn W. O'Dowd			*Date*	August 5, 2003

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#14/Appeal Brief

Assignee: Intel Corporation

PATENT
DOCKET NO.: 2207/6657

10/8/03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS	:	KOIZUMI, David
SERIAL NO.	:	09/396,407
FILED	:	September 15, 1999
FOR	:	MAGNETIC INK ENCODING PEN
GROUP ART UNIT	:	2621
EXAMINER	:	Seyed Azarian

HON. COMMISSIONER
FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

ATTENTION: Board of Patent Appeals and Interferences

APPELLANT'S BRIEF

SIR:

This brief is in furtherance of the Notice of Appeal, filed in this case on June 5, 2003.

1. REAL PARTY IN INTEREST

The real party in interest in this matter is Intel Corporation. (Recorded September 15, 1999; Reel/Frame 010248/0107).

2. RELATED APPEALS AND INTERFERENCES

There are no related appeals.

3. STATUS OF THE CLAIMS

Claims 1-30 are pending in this application.

Claims 1-22 and 24-30 were rejected under 35 U.S.C. § 103(a). Claim 23 was separately rejected under 35 U.S.C. § 103(a). Claim 1 was further rejected under 35 U.S.C. § 102(b). This appeal is an appeal from the rejections of claims 1-30.

4. STATUS OF AMENDMENTS

There are no un-entered amendments.

5. SUMMARY OF THE INVENTION

The present invention relates to a magnetic ink encoding system where an information signal is stored in the magnetic ink. In a magnetic ink system, a pen or other magnetic ink writing head leaves an ink substance upon a surface. The magnetic ink substance contains particles of a magnetic substance which are magnetized and can later be detected by a magnetic sensor. In an embodiment of the present invention, when ink is deposited upon a surface by a magnetic pen, the magnetic pen also magnetizes the ink with a time-varying magnetic field.

For example, FIG. 2 of the present application shows a magnetic ink encoding pen ("magnetic pen") in accordance with an embodiment of the present invention. A magnetic pen 200 includes a magnetic ink reservoir 201 coupled to a penpoint 202. The penpoint 202 can be a ballpoint, a

rollerball, a felt tip, a marker tip, a nib of a fountain pen, etc. The magnetic ink reservoir 201 supplies magnetic ink to penpoint 202, which applies magnetic ink to a surface when a user writes on the surface with the magnetic pen 200. The magnetic ink reservoir 201 is an extended tubular shaft, as is conventionally used in ballpoint pens. In another embodiment, the magnetic ink reservoir may be a cartridge, pouch, or other storage element coupled to a shaft or other structural element of the pen.

A magnetic ink write head 203 is coupled to the magnetic ink reservoir 201. The magnetic ink write head 203 may be positioned behind the penpoint 202 and includes a magnetic shield (not separately shown in FIG. 2), a magnetic field director 204, and a magnetic field generator 205. The magnetic shield can be composed of mu-metal and encases the magnetic field director 204 and magnetic field generator 205 to prevent undesired leakage of magnetic flux. In one embodiment, the magnetic shield includes an opening through which the penpoint 202 and a time-varying magnetic field can pass. The magnetic field director 204 is a tube-shaped magnetically permeable material (e.g., iron, steel, permalloy, a ferromagnetic material, etc.), and the magnetic ink reservoir 201 passes through the hollow of the tube. The magnetic field director 204 focuses the magnetic field generated by the magnetic field generator 205 in the proximity of the penpoint 202. The magnetic field generator 205 can be a magnetic coil (e.g., a copper wire coil, a coil of copper-trace printed membrane, etc.) wrapped around the magnetic field director 204 that carries a time-variable electrical signal to generate a time-variable magnetic field.

A magnetic ink write head 203 including a magnetic coil surrounding a magnetically permeable core can provide a magnetic field in the proximity of the penpoint 202 that has the same modulation independent of the orientation of the pen about its central axis. As the magnetic ink is deposited onto the page by the penpoint 202, the magnetic ink is exposed to the time-varying magnetic field generated by the magnetic ink write head 203. As is known in the art of recording signals on magnetic media

(e.g., onto a magnetic tape) the varying magnetic field created by the magnetic ink write head 203 interacts with the magnetic particles of the magnetic ink to write a magnetic signal into the magnetic ink. (e.g., specification page 4, line 32 – page 6, line 3).

6. ISSUES

A. Are claims 1-22 and 24-30 unpatentable over U.S. Patent No. 3,819,857 to Inokuchi ("Inokuchi") in view of U.S. Patent No. 5,600,781 to Root et al. ("Root")?

B. Is claim 23 unpatentable over Inokuchi in view of Root in further view of U.S. Patent No. 5,546,538 to Cobbley et al. ("Cobbley")?

C. Is claim 1 anticipated by Root?

7. GROUPING OF CLAIMS

Claims 1-30 may be grouped together for the purpose of this appeal only.

8. ARGUMENT

A. Legal Background

Under 35 U.S.C. § 102(b), a claim is invalid if the invention claimed therein is described in a patent issuing more than one year prior to the filing of the subject patent application. Though a patent reference may have issued early enough, that reference must also enable one skilled in the art to practice the claimed invention. See Akzo N.V. v. U.S. Int'l Trade Comm'n, 1 U.S.P.Q.2d (BNA) 1241, 1245 (Fed. Cir. 1986).

Absent anticipation it may be possible to combine two or more patents together to render a claimed invention obvious, and unpatentable, under 35 U.S.C. § 103(a). In determining whether the

claims are unpatentable it is necessary to look to what the references actually teach. "It is impermissible within the framework of § 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." In Re Wesslau, 147 U.S.P.Q. (BNA) 391, 393 (C.C.P.A. 1965). Accordingly, a prior art reference must be considered in its entirety, and portions thereof must be taken in proper context. MPEP § 2141.02; Bausch & Lomb, Inc. v. Barnes-Hind, Inc., 230 U.S.P.Q. (BNA) 416, 419 (Fed. Cir. 1986).

B. Summary of Arguments

Each of the pending claims recites the term "magnetic ink." In independent claim 1, the term "magnetic ink" is described as "including a magnetic substance." In independent claim 5, the "magnetic ink" is described as being "magnetized." In independent claims 6, 20 and 24, the "magnetic ink" is described as having a "varying magnetic flux" applied to it. Thus, in each of the independent claims, and the claims that depend therefrom, "magnetic ink" is described as an ink substance.

The two key cited references, Inokuchi and Root, do not describe, teach, or suggest magnetic ink as an ink substance. In, Inokuchi, the term "magnetic ink" is not used. Instead, the Examiner has cited a portion of a sentence and has interpreted that portion as referring to magnetic ink as an ink substance. When looking at the entire sentence and the remainder of the Inokuchi reference, it is plain that a pen made of magnetic material is provided, and not magnetic ink. The Root reference does use the words "magnetic ink." More correctly, however, the Root reference refers to a "standardized magnetic ink format," and that format refers to the digital storage of handwriting (e.g., in a magnetic hard-disk drive), and not a magnetic ink substance.

Given the lack of disclosure of magnetic ink as an ink substance in the Inokuchi and Root

references, there is no teaching or suggestion in these references to achieve the claimed invention.

C. Claims 1-22 and 24-30 are not unpatentable over Inokuchi in view of Root

1. The Inokuchi Reference

Inokuchi describes an electromagnetic induction-type pattern input apparatus. The input apparatus includes what is referred to as "an electromagnetic pen" and a tablet including a plurality of conductors. Rather than a standard ink-writing instrument, the "electromagnetic pen" is actually a rod with a coil wound up around the rod, wherein the rod is excited by a signal that may be produced by a gate pulse generator electrically connected to the rod. (See, e.g., Figure 4, Abstract). Generally, the pen does not leave an ink deposit. (See, e.g., Figure 7). The only mention of ink in Inokuchi does not mention the ink itself being magnetized or being capable of being magnetized. Rather, the sole purpose for the ink is to leave a residue visible to the naked human eye. (Col. 5, lines 53-60). No apparatus or method disclosed in Inokuchi leaves a magnetized ink deposit, or involves the use of magnetic ink.

2. The Root Reference

Root refers to a method and apparatus for creating a portable personalized operating environment. In one embodiment, information concerning a user's handwriting style may be stored on a PCMCIA card (e.g. card 205 in Fig. 2). When the user comes to a new computer, he/she inserts the PCMCIA card into that computer. This new computer then uses the parameters stored on the card to recognize the user's handwriting. (See Col. 5, lines 29-42). One advantage of this system, is that when a user comes upon a new computer system, the standard steps necessary for the computer to recognize the user's handwriting need not be performed.

3. Argument

Neither of the cited references teach or even remotely suggest magnetic ink as recited in the pending claims. As discussed above, magnetic ink is an ink substance in which an information signal may be stored.

a. Inokuchi

In the First Office Action in this case (dated July 2, 2002), the Examiner took the position that "Inokuchi discloses, an apparatus for storage of information comprising: magnetic ink having a stored information signal, (see Fig. 10, column 6, lines 22-30, the outputs of three bits from comparators 104, are temporarily "store" in a first register)." Looking at Fig. 10, driving circuit 101 drives a coil interfacing with pen 11. The pen 11, is referred to as an electromagnetic pen (see, e.g., col. 3, lines 53-63). Looking again at Fig. 10, three conductive loops are provided as part of the writing tablet 8. The section cited in the Office Action refers to sensing, electromagnetically, the interaction of the electromagnetic pen 11 and the conductive loops of the tablet 8. In other words, the magnetic field generated by the structure of the pen interacts with the loops to cause current to flow in the loops. This current is received by sense amps 103 and stored as binary data. The device of Inokuchi works regardless of whether ink is dispensed from pen 11. This is supported, for example, by the description of an electromagnetic pen in Fig. 14, where nothing is mentioned about whether ink flows from the pen or not (See, col. 7, lines 49-57). Thus, there is no disclosure in Inokuchi that its ink includes a magnetic substance or that the magnetic ink has a stored information signal as recited in claim 1. Likewise, for independent claims 5, 6, 20 and 24, Inokuchi does not refer to magnetizing ink, or varying magnetic flux to a magnetic ink as recited in these claims.

After presenting these arguments, the Examiner responded in the Final Office Action (dated

May 5, 2003) as follows:

> "Applicant argues in essence that Inokuchi does not teach 'magnetic ink'. With respect to applicant's argument the Examiner disagrees and indicates Inokuchi teaches the following features: (Fig. 9, item 94, column 5, lines 53-59, which clearly mention pen 91 **made of magnetic material and ink 94** stored in the pen holder 93 is supplied through this opening to write a pattern on table sheet." (emphasis in original)

The Examiner, has in essence taken the phrase "pen 91 made of magnetic material and ink 94" out of context from the Inokuchi reference. As stated above, it is impermissible to take a part of a reference for an obviousness rejection under § 103 and ignore the remainder of the reference. As demonstrated below, the sentence from which the phrase "pen 91 ... ink 94" is taken contradicts the Examiner's interpretation. Moreover, the Inokuchi reference, as a whole, contradicts the Examiner's interpretation.

The title of the Inokuchi patent is "Electromagnetic Induction Type Pattern Input Apparatus." Induction, as readily known in the art, refers to the interaction of electrical coils and/or magnets. To that end, coils in the tablet sheet 8 interact with a coil 10 wrapped around a magnetic rod 9 (See Fig. 3). Magnetic ink is neither taught nor suggested in Inokuchi. The entire paragraph that includes the text cited by the Examiner reads as follows:

> "Where it is desired to simultaneously write the input pattern on the paper, an electromagnetic pen 90 as shown in Fig. 9 is used. More particularly, in this pen 90, a fine opening is perforated through a pen 91 made of magnetic material and ink 94 stored in the pen holder 93 is supplied through this opening to write a pattern on the tablet sheet."

The second sentence, above is a compound sentence in that it includes two grammatically

complete sentences (i.e., each sentence includes a subject and a correspodning verb) separated by a conjunction "and." The first complete sentence is "More particularly, in this pen 90, a fine opening is perforated through a pen 91 made of magnetic material ...." The subject of the sentence is "opening" and the verb is "is perforated." The pen 91 is made of magnetic material. This first portion of the sentence is consistent with the remainder of the specification. Note that element 9 in Fig. 3 is a magnetic rod, element 11 is a magnetic pen in Fig. 10, and element 145 is a thin needle shaped magnetic member in Fig. 14. As stated above, it is the interaction between the magnetic pen and the coils in the tablet that leads to determining the position of the pen on the tablet. The second complete sentence is "... ink 94 stored in the pen holder 93 is supplied through this opening to write a pattern on the tablet sheet." The subject of the sentence is "ink" and the verb is "is supplied." Thus, the term "magnetic" is an adjective for the noun "material" and not the noun "ink."

Grammatically, the sentence in question from Inokuchi would be nonsensical if the term "magnetic" is an adjective for "ink 94." Assuming that "magnetic" describes "ink 94" as suggested by the Examiner, then the phrase "through a pen 91 made of magnetic material and ink 94" is a prepositional phrase with a participle phrase. The prepositional phrase "through a pen 91" serves as an adverb for the verb "is perforated." The participle phrase "made of magnetic material and ink 94" serves as an adjective for the noun "pen 91." If this is true, then removal of this prepositional phrase (adverb) and participle phrase (adjective) would leave the sentence grammatically correct with its subject(s) and verb(s).[1] Setting aside the prepositional phrase and participle phrase above, the sentence would read as follows:

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[1] See S. Sorenson, Webster's New World Student Writing Handbook, 4th Ed., pp. 526-28 (© 2000, IDG Books Worldwide). A copy of these pages is attached at the end of this Appeal Brief.

> More particularly, in this pen 90, a fine opening is perforated stored in the pen holder 93 is supplied through this opening to write a pattern on the tablet sheet.

This sentence, of course, is grammatically incorrect. Though the subject "opening" has a corresponding verb "is perforated," there is no subject for the verb "is supplied." Thus, including "and ink 94" as part of the prepositional/participle phrases renders the sentence nonsensical. The intended prepositional/participle phrases are "through a pen 91 made of magnetic material." The prepositional phrase "through a pen 91" serves as an adverb for the verb "is perforated," and the participle phrase "made of magnetic material" serves as an adjective for the noun "pen 91." Setting aside this prepositional phrase (adverb) and participle phrase (adjective), leaves the sentence grammatically correct:

> More particularly, in this pen 90, a fine opening is perforated and ink 94 stored in the pen holder 93 is supplied through this opening to write a pattern on the tablet sheet.

This sentence is grammatically correct. Again, the subject "opening" corresponds to the verb "is perforated," and the subject "ink 94" is the subject for the verb "is supplied." Thus, the term "magnetic material" in this paragraph is describing the composition of the pen (just like magnetic rod 9 in Fig. 3) and not describing ink 94.

In the Advisory Action (dated May 30, 2003), the Examiner appears to emphasize a portion of this sentence differently than in the Final Office Action. The Examiner states that "Inokuchi teaches Fig. 9, column 5, lines 53-59, 'magnetic material and ink stored in the pen holder 93is supplied through the opening to write on sheet .'" Though the quote from Inokuchi is incorrect, the Examiner seems to be stating that magnetic material and ink is supplied through the opening in the pen. Again, this is a

misinterpretation of the sentence. The first part of the sentence says that the pen 91 is made of magnetic material. Taking "magnetic material" and making it part of the subject for the following verb "is supplied" leaves the participle phrase "made of ..." incomplete. "Magnetic material" cannot serve as both the subject for the following verb "is supplied" and part of the participle phrase "made of magnetic material" to serve as an adjective for the noun "pen 91." The correct interpretation, of course, is that "made of magnetic material" is a participle phrase used in describing the content of pen 91, and "ink 94" is the sole subject of the verb "is supplied."

The remainder of the Inokuchi reference does not support the Examiner's contention that ink 94 is magnetic. The other embodiments in Inokuchi do not even provide ink emitted by the magnetic pen. Moreover, claims 4 and 11 of Inokuchi appear to provide the only other mention of the term "ink" in this patent reference. The text of those claims supports the construction of the paragraph at Col. 5, lines 53-59 given above. Each of claims 4 and 11 recites an electromagnetic pen comprising "a pen holder having therein an ink reservoir and a magnetic pen having a passage communicating with said ink reservoir." Again, the term "magnetic" is used to describe the pen and not the ink in the ink reservoir.

Read in its entirety, as required for a § 103 analysis, it is clear that Inokuchi fails to teach or describe magnetic ink as called for in the pending claims.

b. Root

As described above, the Examiner has taken a sentence fragment from Inokuchi to support his § 103 rejection of the claims and ignores the remainder of the sentence and the remainder of the reference, which suggest something quite different to one of ordinary skill in the art. Doing so is impermissible under the MPEP and the Federal Circuit jurisprudence. The Examiner has chosen to do the same thing with the Root reference. Though the Examiner has cited a couple of sentences from the

Root reference to support his § 103 rejection, the remainder of the patent reference and the JOT specification that is cited by the sentences in question suggest something quite different to one of ordinary skill in the art. Most importantly, there is no depiction in Root of ink of any type being deposited onto a surface.

In the Final Office Action, the Examiner states as follows:

> "Root et al discluses information is stored in a standardized magnetic ink format know as the "JOT" form (column 5, lines 57-66)."

In using the term "magnetic ink," Root is not referring to a physical substance. The complete cited text is given below:

> "The handwriting information can be stored in any type of handwriting format. However, in the preferred embodiment, the handwriting information is stored in a standardized magnetic ink format know[n] as the 'JOT' format. The JOT format contains rich attributes required to accurately represent digital ink. For example, the JOT format stores pen tip pressure, the timing of each pen stroke, the ordering of the strokes. Additional information about the JOT format can be found in the Jot Ink Specification, 1993, available from the Software Publisher's Association Mobile and Pen special-interest group."

Appellant submitted, in an IDS, a document that includes sections of, and describes, the JOT specification. Pages 3-4 describe the supported properties for the specification. These include the type of pen tip, the timing of the strokes (e.g., is a line drawn quickly or slowly), the angle of the stylus, the pressure exerted on the stylus (e.g., through the height of the pen over the digitizer), etc. As seen from the list, and the entire document, the only properties of the ink itself that appear to be taken into consideration are the color and its opacity.

Looking at Root, at Col. 5, lines 62-63, Root describes the JOT specification as referring to "pen pressure, the timing of each pen stroke, [and] the ordering of the strokes" and also does not mention ink properties. Indeed, looking at Root, there is no disclosure of an ink substance to be applied to a surface. The stylus 120 of Fig. 1 does not output ink. Certainly, the "fax Bob" message on screen 130 is an electronic display and not magnetic ink.

Root refers to handwriting recognition. The disclosure of Root is easily described with respect to Fig. 1 on the front page of the patent. A "personality profile" is stored on the card in PCMCIA slot 110, which stores parameters allowing the computer 100 to recognize the handwriting of the user using electromagnetic pen 120 on CRT screen 130. There is no ink coming out of pen 120, and it is inconceivable that one would want to deposit ink of any kind onto a Cathode Ray Tube (CRT) screen or any other computer display screen.

Column 5, lines 57-66 refers to the storing of handwriting information in "a standardized magnetic ink format [known] as the 'JOT' format. The JOT format contains rich attributes required to accurately represent digital ink." These two sentences describe the storing of handwriting information as "magnetic ink" and "digital ink." These terms are synonymous and refer to how data is commonly stored in computers, as binary "1"s and "0"s in a RAM memory, a magnetic hard disk, etc. In Root, the handwriting information is to be stored on the PCMCIA card in slot 110 so that it can be ported to different computers (See Col. 5, lines 28-42).

Reading the cited sentences of Col. 5, lines 57-67 with the remainder of the Root reference, as required for a § 103 analysis, it will be readily apparent to one skilled in the art that Root is referring to handwriting recognition and the storage of handwriting information when referring to a "standardized magnetic ink format" such as the JOT format. The Root reference, certainly does not teach or suggest

to one of ordinary skill in the art magnetic ink as an ink substance as recited in each of the pending claims.

In summary, distinct features recited in the pending claims are not taught or suggested by the Inokuchi or Root references. Accordingly, a rejection of these claims under 35 U.S.C. § 103(a) is improper. In view of the above, Appellant respectfully submits that the rejection of claims 1-22 and 24-30 under 35 U.S.C. § 103(a) should be reversed.

D. Claim 24 is not unpatentable over Inokuchi in view of Root in view of Cobbley

Cobbley does not make up for the deficiencies of Inokuchi and Root. Cobbley refers, in part, to handwriting analysis software. At Col. 3, lines 26-32, a user enters data into the laptop computer with a stylus. Such a stylus is typically a solid piece of material (e.g., a plastic material), that does not output any ink. The analysis performed by the software is based on the interaction between the stylus 25 and the display 23. Because the magnetic ink feature of independent claim 20 from which claim 23 depends, is wholly missing from Cobbley (as well as the Inokuchi and Root references), Appellant respectfully submits that the rejection of claim 23 under 35 U.S.C. § 103(a) should be reversed.

E. Claim 1 is not anticipated by Root

For the reasons stated above with respect to the Root reference and the Examiner's rejection of claims 1-22 and 24-30 under 35 U.S.C. § 103(a), the Root reference does not disclose, teach or suggest magnetic ink, including a magnetic substance, and the magnetic ink having a stored information signal as recited in claim 1. Accordingly, Appellant respectfully submits that the rejection of claim 1

under 35 U.S.C. § 102(b) should be reversed.

CONCLUSION

Appellant respectfully request that the Board of Patent Appeals and Interferences reverse the Examiner's decision rejecting claims 1-30 and direct the Examiner to pass the case to issue.

The Commissioner is hereby authorized to charge the appeal brief fee of $320.00 and any additional fees which may be necessary for consideration of this paper to Kenyon & Kenyon Deposit Account No. 11-0600. A copy of this sheet is enclosed for that purpose.

Respectfully submitted,

Date: August 5, 2003

Shawn W. O'Dowd (Reg. # 34,687)

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APPENDIX

(Brief of Appellant David Koizumi
U.S. Patent Application Serial No. 09/396,407)

CLAIMS ON APPEAL

The claims in their current form are presented below:

1. An apparatus for storage of information, comprising:

magnetic ink, including a magnetic substance, said magnetic ink having a stored information signal.

2. The magnetic ink of claim 1, wherein the stored information signal includes an analog information signal.

3. The magnetic ink of claim 1, wherein the stored information signal includes a digital information signal.

4. The magnetic ink of claim 1, wherein the stored information signal includes a time-varying frequency signal.

5. A magnetic information storage structure, comprising:

a surface; and

magnetic ink applied to the surface, said magnetic ink magnetized such as

to contain an encoded information signal.

6. A magnetic ink encoding stylus, comprising:

a penpoint adapted to apply magnetic ink to a surface; and

a magnetic ink write head, coupled to the penpoint and adapted to apply a varying magnetic flux to the magnetic ink as it is applied by the penpoint to the surface.

7. The apparatus of claim 6, wherein the magnetic ink write head includes:

a magnetic field generator, and

a magnetic shield.

8. The apparatus of claim 7, wherein the magnetic field generator includes a magnetic coil.

9. The apparatus of claim 8, wherein the magnetic coil is a wire coil.

10. The apparatus of claim 7, further comprising a magnetic field director.

11. The apparatus of claim 10, wherein the magnetic field director includes an iron core element.

12. The apparatus of claim 6, wherein the magnetic ink write head includes a plurality of magnetic pole faces.

13. The apparatus of claim 6, further comprising a signal generator coupled to the magnetic ink write head.

14. The apparatus of claim 13, wherein the signal generator includes a analog timing signal generator.

15. The apparatus of claim 13, wherein the signal generator includes a digital signal generator.

16. The apparatus of claim 13, further comprising a pressure sensor coupled to the signal generator.

17. The apparatus of claim 6, further comprising encoding electronics coupled to the magnetic ink write head.

18. The apparatus of claim 17, further comprising a direction sensor coupled to the encoding electronics.

19. The apparatus of claim 6, further comprising a port adapted to be coupled to an external computer bus, said port coupled to the magnetic ink write head.

20. A computer system, comprising:

a computer, including

a processor;

a memory coupled to the processor; and

an external bus coupled to the processor; and

a magnetic ink encoding stylus, including

a penpoint adapted to apply magnetic ink to a surface;

a magnetic ink write head coupled to the penpoint and adapted to apply a varying magnetic flux to the magnetic ink as it is applied by the penpoint to the surface; and

a port coupled to the magnetic ink write head and to the external bus.

21. The computer system of claim 20, wherein the magnetic ink encoding stylus includes a signal generator.

22. The computer system of claim 20, wherein the magnetic ink encoding stylus includes encoding electronics.

23. The computer system of claim 20, wherein the computer includes:

a graphics tablet coupled to the processor; and

a handwriting recognition application coupled to the processor.

24. A method of storing information, comprising:

applying magnetic ink on a surface; and

applying a varying magnetic flux to the magnetic ink.

25. The method of claim 24, wherein the information is digital information signal.

26. The method of claim 24, wherein the information is security data.

27. The method of claim 24, wherein applying a varying magnetic flux to the applied magnetic ink includes:

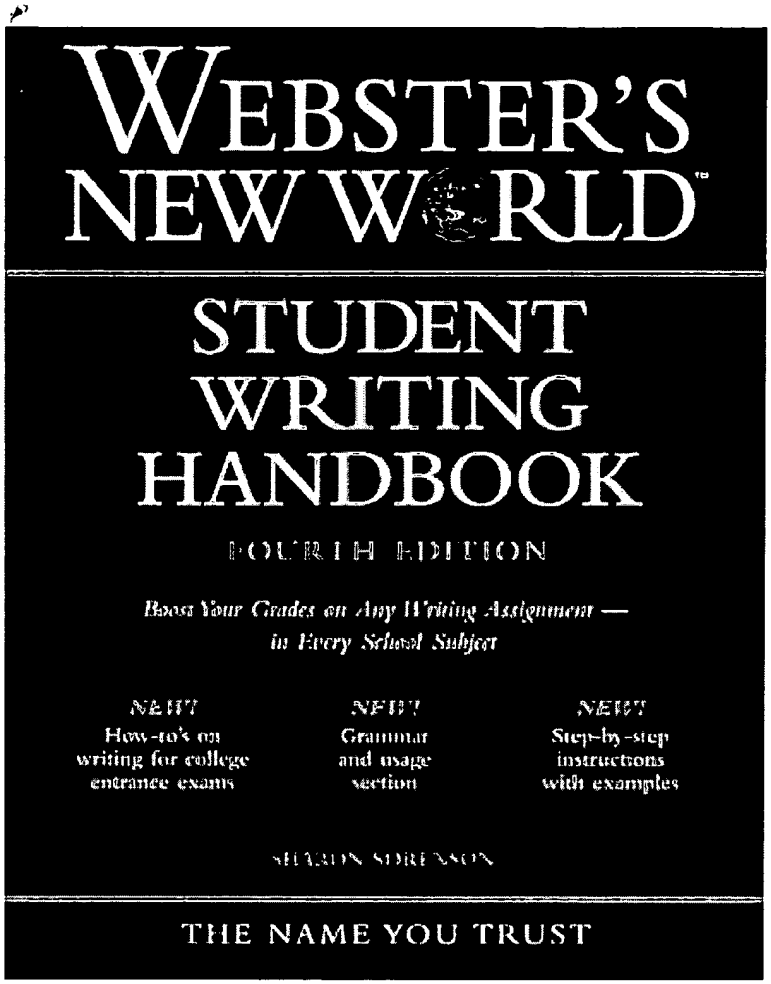
generating a varying magnetic field corresponding to an information signal, the varying magnetic field intersecting the applied magnetic ink.

28. The method of claim 27, further comprising:

responsive to sensing stylus pressure, generating the information signal.

29. The method of claim 27, wherein the information signal is a timing signal.

30. The method of claim 27, wherein the information signal is received from a computer.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The preposition, with its object, **functions** as a single word.

- The preposition can function as an **adjective.**

  The cat *with the bushy tail* chases birds.
  (The prepositional phrase *with the bushy tail* tells *which* about the noun *cat*; thus, it functions as an adjective.)

- The preposition can function as an **adverb.**

  The child who fell *into the pond* needs dry clothes.
  (The prepositional phrase *into the pond* says *where* about the verb *fell*; thus it functions as an adverb.)

The following **characteristics** indicate prepositions:

- First, a preposition will always be followed by an **object,** which must be a noun.
- Second, a preposition is "any place a rat can run," that is, any word that describes a direction, destination, or state in which a rat runs. (The preposition *of* is the only exception.)

  A rat can run *across* the hall, *along* the wall, or *around* the corner.

PARTS OF THE SENTENCE

In order to determine correct usage, you must be able to identify the parts of a sentence: subject, verb, direct object, indirect object, predicate word, and objective complement. These **eight easy steps to sentence analysis** can help you find the major parts of any sentence.

Step 1: Remove the **prepositional phrases.**

A row *of boulders* blocks the driveway.
A row . . . blocks the driveway. (prepositional phrase removed)

Step 2: Identify the word or words that change time, thus identifying the **verb.**

A row of boulders was blocking the driveway.
A row . . . was blocking the driveway (prepositional phrase removed).
Yesterday, a row . . . *blocked* the driveway; tomorrow a row *will block* the driveway. (*Blocks* is the verb.)

Step 3: Determine whether the verb is **action** or **linking.**

Most of the road crew were hot and tired.
Most . . . were hot and tired. (prepositional phrase removed).
Tomorrow, most . . . *will be* hot and tired. (*Were* is the verb, a linking verb, one of the verbs *to be* that are always linking.)

Step 4: Find the **subject** by asking *who?* or *what?* in front of the verb.

Many of the shoppers in the mall found bargains on Labor Day weekend.
Many . . . found bargains . . . . (prepositional phrases removed).
Tomorrow, many . . . will find bargains . . . . (*Found* is the verb. *Found* is an action verb.)
Who or *what* found? *Many.* (*Many* is the subject.)

Note that the subject is not always in front of the verb, so to find the answer to *who?* or *what?* you may have to look after the verb. Remember that *here* and *there* can never be subjects.

There, peeping out from behind the door, stood Amity.
There, peeping out . . . stood Amity (prepositional phrase removed).
Tomorrow, peeping out . . . will stand Amity. (*Stood* is the verb. *Stood* is an action verb.)
Who or *what* stood? *Amity.* (*Amity* is the subject.)

Step 5: If the sentence uses an **action** verb, ask *who?* or *what?* after the verb to check for a **direct object.** (A direct object must be a noun.) If the sentence uses a **linking** verb, skip to Step 8.

A few of the travelers brought sack lunches with them.
A few . . . brought sack lunches . . . . (prepositional phrases removed).
Tomorrow, a few . . . will bring sack lunches . . . . (*Brought* is the verb. *Brought* is an action verb.)
Who or *what* brought? *Few.* (*Few* is the subject.)
Few brought *who* or *what*? *Lunches.* (*Lunches* is the direct object.)

Not all action verbs have a direct object. A linking verb can *never* have a direct object.

Step 6: If the sentence uses a direct object, ask *to whom?* or *for whom?* after the direct object to check for an **indirect object.** (Without a direct object, there can be no indirect object.)

The auto mechanic showed the SUV driver a diagram of the wiring system.
The auto mechanic showed the SUV driver a diagram . . . . (prepositional phrase removed).
Tomorrow, the auto mechanic will show the SUV driver a diagram. (*Showed* is the verb. *Showed* is an action verb.)
Who or *what* showed? *Mechanic.* (*Mechanic* is the subject.)
Mechanic showed *who* or *what*? *Diagram.* (*Diagram* is the direct object.)
Mechanic showed diagram *to whom* or *for whom*? *Driver.* (*Driver* is the indirect object.)

In Step 5, there may be answers to both *who?* or *what?* In such a case, the word that answers *what?* is the direct object; the word that answers *who?* is the indirect object. The indirect object always follows the verb and precedes the direct object. The words *to* and *for* are prepositions, so if they appear in the sentence, check for a prepositional phrase, not an indirect object.

Step 7: If the sentence uses a direct object and a word that renames or describes the direct object, you have an **objective complement,** not an indirect object.

The committee chose Juan chairman.
The committee chose *who* or *what? Juan.* (*Juan* is the direct object.)
What word renames or describes *Juan*? *Chairman.* (*Chairman* is the objective complement.)

Step 8: If the sentence uses a linking verb, the word that answers *who?* or *what?* after the verb is the **predicate word.** The predicate word can be a noun or an adjective.

Richard's 1957 Chevy remains bright and shiny, in mint condition.
Richard's 1957 Chevy remains bright and shiny .... (prepositional phrase removed).
Tomorrow, Richard's 1957 Chevy will remain bright and shiny .... (*Remains* is the verb. *Remains* is a linking verb.)
Who or *what* remains? *Chevy.* (*Chevy* is the subject.)
Chevy remains *who* or *what*? *Bright* and *shiny.* (*Bright* and *shiny* are two predicate adjectives)

Any part of the sentence can be compound if joined by the words *and, but, or,* or *nor.*

Section B: Usage

AGREEMENT OF SUBJECT AND VERB

A singular subject takes a singular verb, and a plural subject takes a plural verb. As simple as that seems, five common errors related to subject/verb agreement can creep into writing.

The most common error occurs when the writer **chooses the wrong noun as the subject.**